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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,340	02/16/2001	Jamil Ahmad	476-1989	1603

7590 02/12/2004

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EXAMINER

AHN, SAM K

ART UNIT PAPER NUMBER

2634

DATE MAILED: 02/12/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/785,340

Applicant(s)

AHMAD, JAMIL

Examiner

Sam K. Ahn

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 11 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 8-10 and 12-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not consistent with the title in the declaration. The Office suggests changing the title in the specification or the title in the declaration.
2. The abstract of the disclosure is objected to because it exceeds 150 words.
Correction is required. See MPEP § 608.01(b).
3. For the formality of the application under the present office practice, applicant(s) is required to replace "Claims" with "I or We Claim", "The Invention Claimed Is" (or the equivalent) before the Claims part of the specification of the instant application. See MPEP 608.01(m).

Claim Objections

4. Claims 8-10 and 12-20 are objected to because of the following informalities:

In claim 8, line 2, the Office suggests deleting "--- tone," and inserting "--- tone."

In claims 12, 15, 17 and 20, lines 10, 13, 13 and 15, respectively, the Office suggests deleting "--- a said single ---" and inserting "--- said single ---".

In claim 13, line 2, the Office suggests deleting "--- an input signal." and inserting "--- said input signal.", since it was previously recited in claim 12, line 4.

In claim 15, line 16, the Office suggests deleting "--- a said modem ---" and inserting "--- said modem ---".

Claims 9-10, 14, 16, 18 and 19 directly or indirectly depend on claims 8, 12, 13, 15 or 17.

Appropriate correction is required.

Allowable Subject Matter

5. Claims 1-7 and 11 are allowed.
6. Claims 8-10 and 12-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:
Present application discloses an echo canceller and a tone detector wherein the tone detector determines whether the received signal contains single or dual frequency signaling tone. Applicant discloses wherein mean frequency of the received signal is calculated and compared to stored values of the single and dual frequency one values. When the detector detects values from the stored values, an output signaling detection of a single or dual frequency tone is generated. Closest prior art, Bartkowiak, teaches detection of analog signals detecting the received signal and comparing to multiple frequencies of one or more. And therefore, is capable of detecting single and dual frequency. However, Bartkowiak does not

teach wherein the mean frequency is calculated and compared with the mean frequency values of single and dual frequency. Therefore, prior art do not teach or suggest in combination of all the elements claimed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Trump, Suzuki et al., Gupta et al. and Sheno et al. teach tone detector to determine whether echo canceller is necessary.

Sugino et al. teaches tone detector capable of discriminating different signal types.

Denenberg and Li teach tone detectors encompassing range of frequencies.

9. This application is in condition for allowance except for the following formal matters:

Claim objections and specification objections.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Sam Ahn** whose telephone number is **(703) 305-0754**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Sam K. Ahn
2/9/04


STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600